Environmental Services Liberalization: A Win-Win or Something Else Entirely?

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In the delayed concluding hours of the World Trade Organization (WTO) Ministerial in Doha, Qatar, in December 2001, one of the final issues agreed upon was a set of mandates titled "trade and environment" in paragraph 31 of the meeting's official declaration. The stated aim of these mandates was "enhancing the mutual supportiveness of trade and environment," and among the key enumerated items was a call for "the reduction or, as appropriate elimination, of tariff and non-tariff barriers to environmental goods and services."[1] The Doha Declaration thus established liberalization of environmental services, alongside environmental goods, as a key environmental objective of the WTO in its coming negotiations. In some sense, the WTO staked its environmental future in part on these negotiations.

Liberalization of environmental services has long been touted as a "win-win" opportunity for trade and the environment, providing benefits to both international commerce and environmental protection.[2] The Doha Declaration appears to have strongly affirmed that view and sets a critical context for future negotiations in environmental services in the context of the General Agreement on Trade in Services (GATS). Indeed, by including environmental services in paragraph 31, the agreement at Doha established environmental benefit as the purpose and the clear benchmark for these negotiations. Appropriately conducted environmental services are in fact important to preventing and mitigating pollution in countries throughout the world, and an effort to negotiate reductions to barriers in

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1. World Trade Organization, *Doha WTO Ministerial 2001: Ministerial Declaration*, WT/MIN(01)/DEC/1 (Nov. 14, 2001). It is important to emphasize that this article is concerned with environmental services liberalization in particular; environmental goods negotiations involve quite different issues and should be treated separately.

2. *See Statement of the United States*, presented at the WTO High Level Symposium on Trade and Environment, Synergies Between Trade Liberalization and Sustainable Development (Mar. 15–16, 1999), *available at* http://www.ustr.gov/html/winwin.html.

environmental services could be environmentally beneficial. If the WTO's efforts to remove barriers are targeted to those sectors and technologies that clearly and unambiguously protect the environment, the negotiations may be able to play a role in the diffusion of environmentally beneficial services.

Yet there are fundamental flaws with the premise that the WTO environmental services negotiations will advance environmental protection and provide a win-win outcome. First, the negotiations are, in many respects, superfluous: the key impediment to the international diffusion of beneficial environmental services has not been market barriers, but rather lack of sufficient funding and other capacity prerequisites, especially in developing countries. Further, liberalization of environmental services under the rules of the GATS may in fact create more harm than benefit, in large part because the WTO classification of environmental services is inappropriate and outmoded. The current classification fails fundamentally by not distinguishing among the environmental impacts of service activities and by incorporating potentially harmful activities involving waste-related and water-related operations. Moreover, the GATS disciplines themselves may amplify the problems with the classification by impeding the ability of governments to enact and apply regulatory measures to protect the environment.

As a consequence, the environmental benefits of certain services characterized as environmental cannot be taken as a given, nor can the outcome of trade negotiations in these sectors be assumed to protect the environment. If environmental services according to the current classification are made subject to GATS obligations, the result may likely be an outcome inconsistent with the stated environmental objective of the Doha Declaration. Addressing this inconsistency will require, at a minimum, revising the classification for environmental services so that harmful environmental service activities are excluded and modifying the general exceptions in the GATS to decrease the potential for environmental protection measures to be undermined by GATS obligations.

I. The Current State of the Environmental Services Sector

As questions of the planet's carrying capacity for waste and pollution steadily increase, the importance of providing services for environmental protection also mount, a need reflected in the increasing size and scope of the environmental services sector. The most commonly cited definition of the environmental industry, developed by the Organization for Economic Cooperation and Development (OECD), broadly describes the sector as consisting of: "activities which produce goods and services to measure, prevent, limit, minimise or correct environmental damage to water, air and soil, as well as problems related to waste, noise and eco-systems, [including] cleaner technologies, products and services that reduce environmental risk and minimise pollution and resource use."[3] Yet the industry is far from cohesive, and determining exactly which types of activities or operations comprise the environmental services sector is not an easily accomplished task. As will be described in more detail later, the difficulty in defining the environmental services industry is compounded by the potentially harmful environmental impacts of some service activities that fall within many descriptions of the sector.

3. OECD, THE ENVIRONMENTAL GOODS AND SERVICES INDUSTRY: MANUAL FOR DATA COLLECTION AND ANALYSIS (1999), at 9 [hereinafter MANUAL].

To address the lack of clarity concerning the industry's parameters, the OECD collaborated with Eurostat, the Statistical Office of the European Communities, to develop a manual for classification and measurement in the environmental services industry that was released in 1999.[4] The OECD analysis includes the broad definition of environmental services cited above and divides the industry into three fundamental segments. The first category, pollution management, includes most of what is commonly considered environmental services. This grouping includes activities such as environmental engineering design; air pollution control; environmental monitoring, analysis and assessment; environmental remediation services for soil, surface water, and groundwater; noise and vibration abatement; wastewater management; solid waste collection, treatment, and disposal, including hazardous and standard waste; and waste recovery and recycling.[5] The second grouping, cleaner technologies and products, includes services for cleaner and resource-efficient production and operation processes. The third segment, resource management, includes such activities as renewable energy services and sustainable agriculture and forestry services.[6]

Perhaps reflecting the industry's lack of cohesion, data concerning the financial size of the environmental service sector and trade in environmental services are incomplete and have generally been gathered by private, rather than public, entities. The sector's size can be gleaned from private sector estimates that conclude that the global environmental industry market was $522 billion in 2000, representing a 15 percent increase from 1996.[7] Environmental services account for 50 percent of the entire industry, more than 90 percent of which is represented by OECD markets.[8] The environmental sector in general is engaged in a long-term structural shift from more traditional "end-of-pipe" technologies that involve disposal of waste outputs, to technologies focused on cleaner technology and pollution prevention, in part in response to shifts in environmental regulatory approaches.[9] Yet the most traditional environmental services, particularly solid waste management and wastewater treatment have continued to represent nearly 70 percent of all activity in the entire sector.[10]

The environmental services industry has traditionally not engaged in significant international activity, but environmental services trade has generally appeared to grow in recent years. In part, this has occurred as the environmental sector has become a mature industry in developed countries and services firms have increasingly sought out opportunities in new markets, particularly in developing countries.[11] Increased privatization of utilities, including waste and water management, in both developed and developing countries, has also made the industry more oriented toward trade.[12] Statistics regarding trade in environmental

4. *Id.*

5. *Id.*; *see also* United Nations Environment Programme & United Nations Conference on Trade and Development, Workshop on Post Doha Negotiating Issues on Trade and Environment in Paragraph 31, *GATS Negotiations and Issues for Consideration in the Area of Environmental Services from a Development Perspective* (May 16, 2002), ¶¶ 15, 29–32 [hereinafter *GATS Negotiations*].

6. *Id.*

7. *GATS Negotiations*, *supra* note 5, ¶ 17.

8. OECD, ENVIRONMENTAL GOODS AND SERVICES: AN ASSESSMENT OF THE ENVIRONMENTAL, ECONOMIC AND DEVELOPMENT BENEFITS OF FURTHER GLOBAL TRADE LIBERALIZATION (2000), at 8.

9. *GATS Negotiations*, *supra* note 5, ¶ 14.

10. MANUAL, *supra* note 3, at 8.

11. *GATS Negotiations*, *supra* note 5, ¶ 21.

12. *Id.* ¶ 19.

services are not readily available (for example, the OECD, which has compiled the most extensive data concerning trade in services in general, provides no data for the one category of environmental services—water treatment and depollution—that it includes in a 2000 statistical report on services trade).[13] However, between 1995 and 1999, environmental services exports from the United States grew at an average annual of 6 percent, dropping in 2000 to an average growth rate of 5.1 percent.[14] Consulting and engineering services represented the majority of U.S. environmental service exports, while solid waste management, the second leading category, totaled 18 percent of all exports.

Increased trade in environmental services can be helpful in promoting international transfers of technology and technical knowledge, particularly to developing countries. However, the most significant factors affecting the level of trade in environmental services are generally not trade-related barriers that can be addressed through liberalization negotiations. According to the United Nations Environment Programme (UNEP) and the United Nations Conference on Trade and Development (UNCTAD), trade in environmental services is "relatively free" of restrictions compared to other service sectors.[15] The barriers most often cited are ones that apply across commercial sectors for foreign investment, but are not specifically aimed at the provision of environmental services. The WTO Secretariat cites such potential barriers as limitations on foreign equity ownership, local incorporation requirements, and joint venture requirements.[16] The U.S. Department of Commerce (DOC) described the principal barriers to entry into the Canadian market as ones relating to taxation provisions that affect temporary entry of equipment, work restrictions for technicians lacking a baccalaureate degree, and provincial certification requirements for engineers.[17]

Despite the effect of these restrictions, the most significant set of factors affecting international markets for environmental services is on the demand side, including the availability of resources to increase capacity in the sector and the state of environmental policy that shapes the need for environmental services.[18] Developing countries, in particular, faced with the impacts that accompany urban and industrial expansion, lack adequate resources to address waste and pollution problems. An estimated 2.4 billion people worldwide do not have adequate sanitation services, a central concern for developing countries during the U.N. World Summit on Sustainable Development in 2002.[19] The growth rates in environmental industry markets in developing countries have generally been greater than in developed countries, in part reflecting efforts to address the tremendous need for these services. For example, growth in the environmental industry during 2000 was 10 percent in Latin America and Africa and 8 percent in Asia countries other than Japan.[20]

13. OECD, STATISTICS ON INTERNATIONAL TRADE IN SERVICES, 1989-1998 (2000).

14. U.S. INTERNATIONAL TRADE COMMISSION, *Recent Trends in Services Trade: 2002*, 6–1 to 6–2 (2002).

15. *GATS Negotiations*, *supra* note 5, ¶ 5.

16. WTO Council for Trade in Services, *Environmental Services: Background Note by the Secretariat*, S/C/W/46 (July 1998), ¶ 29.

17. U.S. DEPARTMENT OF COMMERCE, *Environmental Services: Services Markets of Opportunity (Canada—Environmental Engineering Services)* 8 (July 2002).

18. MANUAL, *supra* note 3, at 25.

19. World Summit on Sustainable Development (WSSD), *A Framework for Action on Water and Sanitation*, 7 (2002) [hereinafter WSSD].

20. U.S. Department of Commerce International Trade Administration, *at* http://web.ita.doc.gov/ete/eteinfo.net (last visited Nov. 13, 2002).

Recent estimates of the funding needed by developing countries to effectively address problems in the areas of water and sanitation, municipal waste, and industrial effluent reach as high as $130 billion annually; $70 billion of which is estimated as necessary for addressing municipal waste issues.[21] For most developing countries a substantial portion of the financial resources needed are to provide resources to public authorities to build capacity in the environmental services sector, including waste management and sanitation. Privatization has shifted the mix of public and private provision of environmental services to some degree, but public sector involvement in environmental services continues to be substantial, reflecting half of all expenditures in OECD countries and 70 percent in developing countries.[22] Thus, while private investment can help to provide increased environmental services, financial resources for public provision will remain essential for the foreseeable future.

An additional factor that plays a critical role in limiting the potential demand for environmental services in developing countries is the lack of adequate environmental regulatory and enforcement regimes. Environmental services markets are driven in large part by responses to environmental protection measures, yet there is wide variation among developing countries in the level of these measures.[23] Resource constraints place additional limitations on the development of environmental enforcement, particularly the adequate funding of public environmental authorities, further limiting the regulatory forces that create a demand for environmental services in developing countries. The environmental services negotiations under the auspices of the GATS are thus likely to miss the central set of obstacles for the improvement of environmental services capacity in the developing world.

II. GATS Negotiations and Environmental Services

The mandate in the Doha Declaration on environmental services lent additional impetus to GATS negotiations that were already underway. The 1994 GATS mandated that negotiations to seek "progressively higher level[s] of liberalization" begin five years after the entry into force of the agreement, in 2000.[24] At the Doha Ministerial, the WTO adopted a timeline for the overall GATS negotiations, with a conclusion set for January 1, 2005. In order to achieve this timeline, countries were expected to present their negotiating requests to other countries by June 30, 2002, and to respond with their negotiating offers to other countries by March 31, 2003.

As one of the sectors for which a classification was established and in which countries took commitments in the 1994 GATS negotiations, environmental services was included among the sectors for negotiations when the current round of GATS talk began. Yet following the Doha Ministerial, it was initially unclear under whose auspices the environmental services negotiations mandated as part of the Doha Declaration's environmental provisions would be negotiated. The WTO Committee on Trade and Environment (CTE), which was expected to handle other environmental negotiating matters as well as the GATS negotiations, both appeared to be possible negotiating forums. However, the CTE quickly agreed that these negotiations should be conducted solely by the Committee for Trade in Services, where GATS negotiations are held.[25] By contrast, the CTE engaged in discussions

21. WSSD, *supra* note 19, at 16.

22. *GATS Negotiations*, *supra* note 5, ¶ 18.

23. *Id.* ¶¶ 22–26.

24. General Agreement on Trade in Services, Jan. 1994, 33 I.L.M. 44, 61 [hereinafter GATS].

25. WTO, Committee on Trade and Environment, Special Session, *Statement by the Chairperson of the Special Session on Trade and Environment to the Trade Negotiations Committee*, Mar. 2002, TN/TE/1, 2.

aimed at clarifying the classification of environmental goods under the same negotiating mandate in paragraph 31 of the Doha text.[26]

The GATS uses a hybrid "top-down" and "bottom-up" approach for the application of obligations. A number of disciplines, including most-favored-nation treatment and guidelines for domestic regulation, apply as general obligations to all Member countries and to all services sectors. However, in the case of national treatment and market access disciplines, individual countries must make "specific commitments" concerning their obligations. Countries may apply qualifications limiting their specific commitments, and, regarding issues of general applicability across service sectors, they may also adopt specific commitments and qualifications on a horizontal basis across all service sectors (for example, for real estate acquisition).

The GATS is broad in its application in several respects, including its coverage of a full range of service delivery modes.[27] In their schedules, countries generally make specific commitments and qualifications in four "modes of supply":

- Mode 1: Providing a service across country borders, for example, through cross-border transport, by telephone, or by internet;
- Mode 2: Providing a service within one's own country to a citizen of another country;
- Mode 3: Providing a service within a foreign country by establishing a "commercial presence" there; that is, a facility, operation, branch office, or subsidiary;
- Mode 4: Providing a service through the presence of staff or employees, but not a "commercial presence," in another country.

The application of the GATS to activities undertaken through the establishment of a commercial presence is particularly noteworthy. In essence the agreement's obligations apply to domestic government measures affecting commercial activities within its territory, and the GATS has, therefore, been described by the WTO Secretariat as a form of investment agreement.[28]

In all the covered modes of service operation, the GATS is applied to a wide range of policy measures. Article I establishes that the agreement "applies to measures by Members *affecting* trade in services" at all levels of government, whether "central, regional or local," thus potentially including any laws, rules, regulations, practices, and procedures that affect the supply or operation of a service.[29] (Emphasis added) A broad understanding of the agreement's scope has been confirmed in recent WTO jurisprudence, including the decision by the Appellate Body in the *EC—Bananas* case, in which restrictions on goods were considered to have had an effect on distribution services to which the GATS applied.[30] In reaching its decision in that case, the Appellate Body affirmed the panel's view:

> no measures are excluded *a priori* from the scope of the GATS as defined by its provisions. The scope of the GATS encompasses any measure of a Member to the extent it affects the

26. *Id.*

27. GATS, *supra* note 24, art. I.2.

28. WTO, *GATS: Fact and Fiction*, *available at* http://www.wto.org/english/tratop_e/serv_e/gats_factfiction4_e.htm (last visited Jan. 3, 2003).

29. GATS, *supra* note 24, arts. I.1, I.3(a)(i) (emphasis added).

30. WTO Appellate Body, *European Communities—Regime for the Importation, Sale and Distribution of Bananas*, WT/DS27/AB/R, ¶¶ 217–222 (Sept. 9, 1997).

supply of a service regardless of whether such measure directly governs the supply of a service or whether it regulates other matters but nevertheless affects trade in services.[31]

At the conclusion of the Uruguay Round of trade negotiations in 1994, thirty-eight WTO Members, including the European Community, adopted specific commitments in at least one sub-sector of environmental services.[32] In the specific sub-sectors of environmental services, twenty-nine commitments were made in the sewage sector and in the refuse disposal sector, and thirty commitments were made in the sanitation and similar services sector. In the various sub-sectors comprised by "other services," twenty-seven commitments were made in cleaning services of exhaust gases, twenty-six in noise abatement services, twenty-seven in nature and landscape protection services, and twenty-one in a variety of other environmental protection services. Fifteen of the Members making specific commitments in environmental services placed limitations on those commitments (in addition to various kinds of horizontal limitations that virtually all countries placed on commercial presence in general).[33] Most significantly for the current negotiations, those Members who have not made any commitments in environmental services are predominantly developing countries. Indeed, the vast majority of developing countries have not made commitments.[34]

III. Classification of Environmental Services under the GATS

Because the specific commitments taken under the GATS are almost exclusively taken in sectors that have been explicitly listed by the WTO in its classification scheme for services, the classification system is of enormous importance. This is particularly so in the case of environmental services, for which the agreement's classification is outdated and inappropriate. In such a heterogeneous service sector, it should perhaps not be a surprise that some imprecision exists or that a classification system becomes unsuitable. As a consequence, however, the environmental benefits of certain services characterized as environmental cannot be taken as a given, nor can the outcome of trade negotiations in these sectors be assumed to protect the environment. Indeed, the current classification may not only fail to provide environmental protection, but could likely increase threats to the environment.

Most centrally, the current GATS classification is based on a model of the environmental services industry that is focused almost exclusively on the handling of waste outputs. Further, the classification lacks any distinctions among service activities based on their environmental benefit or harm. Thus, among its drawbacks, the classification makes quite possible the liberalization of environmentally harmful activities. Proposals to add water services to the environmental services classification may also exacerbate conflicts with environmental protection.

The current classification, known as the W/120, was adopted along with the broader GATS agreement and is based on the U.N. Provisional Central Product Classification (CPC).[35] The W/120 lists environmental services as: (a) sewage services, (b) refuse disposal services, (c) sanitation and similar services, and (d) other.[36] The category "other" can be

31. *Id.* ¶ 217.

32. WTO Council for Trade in Services, *supra* note 16, at table 8.

33. *Id.* at tables 9A, 10, 11.

34. *Id.* at table 8.

35. The classification system is voluntary in the sense that specific commitments can be taken by countries in sectors not classified in the WTO's classification scheme for services, though this is rarely done. It should also be noted that the general obligations of the GATS apply to any sector, whether classified or not.

36. WTO Secretariat, *Services Sectoral Classification List*, MTN.GNS/W/120, category 6 (July 10, 1991).

understood to include the remaining elements of environmental services under the Provisional U.N. CPC—cleaning of exhaust gases, noise abatement services, nature and landscape protection services, and other environmental protection services.[37]

The three primary classifications, which most countries have used as the basis for scheduling their environmental services specific commitments under the GATS, are clearly focused on traditional "end-of-pipe" waste control and disposal services, rather than pollution prevention technologies that would be clearly consistent with the Doha mandate. Moreover, these are the most traditional of "end-of-pipe" service operations, and do not even reflect environmental remediation services, such as cleanup of hazardous waste, and pollution mitigation technologies, such as smokestack scrubbers, that are a newer generation of "end-of-pipe" approaches. Many observers, including industry advocates such as the U.S. Coalition of Services Industries, have criticized the narrowness of the current W/120 classification.[38] Indeed, the W/120 failed even to include several environmental categories that were part of the Provisional CPC—cleaning of exhaust gases, noise abatement services, and nature and landscape protection services. The W/120 classification also failed to include some key aspects of solid waste management, notably including recycling.[39]

Some of the proposals presented by WTO Member countries in the early stages of the current GATS negotiations have aimed to expand the classification of environmental services, in part to address the obvious absence of pollution prevention, remediation, and mitigation services. For example, the European Union's (EU) proposal and the leaked drafts of its negotiating requests to other countries have proposed the reorganization of the environmental services classification into a new set of categories that would extend the reach of the environmental services negotiations. The categories proposed by the EU are water for human use and wastewater; solid/hazardous waste management (including refuse disposal and sanitation); protection of ambient air and climate; remediation and cleanup of soil and water; noise and vibration abatement; protection of biodiversity and landscape; and other environmental and ancillary services.[40]

Australia has supported the classification proposed by the EU, and Switzerland has put forward a very similar classification model.[41] Colombia proposed the addition of several other sub-sectors: implementation and auditing of environmental management systems; evaluation and mitigation of environmental impact; and advice in the design and implementation of clean technologies.[42] However, it is noteworthy that, with the exception of

37. As noted above, WTO Members have taken commitments in these categories. However, these specific categories are not included in the two revisions of the CPC that have been developed, most recently as CPC Version 1.1 released in May 2002.

38. U.S. Coalition of Services Industries, *Response to Federal Register Notice of March 28, 2000 [Doc. 00–7516]*, at VI (May 2000), *available at* http://www.uscsi.org/publications/papers/CSIFedReg2000.pdf.

39. An OECD report has also criticized the failure of the classification to include the provision of services that are "dual" use, such as consulting and engineering services, which have both environmental and non-environmental uses. However, the report acknowledges that OECD Members believe the large number of such dual use services makes it difficult to easily cross-classify them under environmental services. OECD, *supra* note 8, ¶¶ 15–17.

40. WTO, *Communication from the European Communities and their Member States: GATS 2000: Environmental Services*, S/CSS/W/38 (Dec. 22, 2000).

41. WTO, *Communication from Australia: Negotiating Proposal for Environmental Services*, S/CSS/W/112 (Oct. 1, 2001); WTO, *Communication from Switzerland: GATS 2000: Environmental Services*, S/CSS/W/76 (May 4, 2001).

42. WTO, *Communication from Colombia: Environmental Services*, S/CSS/W/121 (Nov. 27, 2001).

this proposal from Colombia, the recent proposals by Member countries fail to explicitly include environmental services focused on pollution prevention and clean technologies. Recycling services are also not explicitly included within the current classification and are not reflected in any of the current proposals for extending the listing of environmental services.

Resolving concerns about the narrowness of the environmental services classification fails, however, to address a more fundamental problem with the current classification. The current listing of sub-sectors, which is retained in all recent classification proposals, is so overly broad as to include a wide-ranging set of waste management activities. According to the WTO Secretariat's description, refuse disposal and sanitation services include "services to collect, transport, treat and dispose waste from homes, municipalities, commercial establishments and manufacturing plants."[43] The EU proposed classification modification replaces the refuse disposal and sanitation categories with "solid/hazardous waste management," a categorization that underscores or perhaps even extends the broad reach of the current categories.

Most critically, the classification makes no distinctions among waste-related service activities based on their environmental impacts and thus admits within the scope of GATS coverage activities that can create significant environmental harm.

While the core services in the current classification can provide important benefits, especially for developing countries, inappropriate waste disposal-related activities have received extensive criticism in recent decades, with particular concern emerging in developing countries.[44]

A number of examples demonstrate the potential for harm. The international shipment of hazardous waste and other waste, particularly to developing countries, has been widely controversial and led to the creation of the Basel Convention on Transboundary Movement of Hazardous Wastes and their Disposal;[45] the toxins associated with waste incineration have become an increasingly significant concern globally, and local and national governments have acted to ban or severely limit incinerator operations;[46] inappropriately designed and operated landfills for both hazardous and non-hazardous waste in developing countries have faced significant environmental opposition;[47] disposal of waste from mining operations

43. WTO Council for Trade in Services, *supra* note 16, at 2, n.6.

44. To put it bluntly, good waste disposal or management is quite different from bad waste disposal or management—whether I throw my soda can out the window, place it in a standard trash can, or make sure that it is recycled makes all the difference in the world.

45. For a description of the controversial waste dumping that led to the Basel Convention in 1989, see JONATHAN KRUEGER, INTERNATIONAL TRADE AND THE BASEL CONVENTION (1999). Controversies over dangerous waste shipments to developing countries continue to erupt; for example, the shipment from developed to developing countries of large quantities of electronic waste containing hazardous materials intended for materials recycling has recently drawn criticism. *See* BASEL ACTION NETWORK AND SILICON VALLEY TOXICS NETWORK, EXPORTING HARM: THE HIGH-TECH TRASHING OF ASIA (Feb. 25, 2002), *available at* http://www.ban.org/E-waste/technotrashfinalcomp.pdf.

46. A number of municipalities and regional and national governments have acted to ban incineration. Global Alliance for Incinerator Alternatives (GAIA), *Dying Technology: The Problems with Incineration* (2002) (on file with author) [hereinafter *GAIA: Dying Technology*].

47. For example, a controversial landfill project in Belize was planned by a U.S. company near sensitive wildlife areas and communities and was later resited following opposition to the project's inadequate environmental safeguards. Allen Hershkowitz, *Dumping on Paradise; waste disposal problems in Belize*, AMICUS (Natural Resources Defense Council, Spring 2001), *available at* http://www.nrdc.org/amicus/01spr/field.asp; Allen Hershkowitz, *Additional Comments on the Belize Solid Waste Management Project Environmental Impact Assessment Final Report for the Mile 27 Sanitary Landfill* (Natural Resources Defense Council, Nov. 21, 2000).

is a highly contentious issue;[48] and disposal of ships through unregulated shipbreaking operations that release toxic chemicals into the environment has resulted in significant opposition.[49]

In addition to the harm associated with sectors that fall within the current environmental services classification, attempts to broaden the classification may also create significant environmental concerns. Most significant in this regard is the EU's proposal on water-related services. The EU aims to add "[w]ater collection, purification and distribution services through mains" under its proposed classification for water for human use and wastewater.[50] However, water collection and distribution are not service activities that necessarily provide environmental benefits, and therefore may not properly belong within the environmental services negotiations mandated by the Doha Declaration. Moreover, water collection and distribution may include services related to natural water resources, clearly an area of substantial environmental concern. Recent controversies such as the conflict over the proposed use of a California desert aquifer to collect and then redistribute water imported by pipeline from the Colorado River emphasize the potential for environmental harm in this sector.[51] In addition, the EU's proposed replacement of "sewage services" with the category of "wastewater services" likely extends the coverage of this category to include not only activities related to household sewage, but also operations involving industrial wastewater. This extension of the classification thus implicates a number of environmentally relevant considerations involving industrial wastewater processes that had not previously been subject to specific commitments under the GATS.

Despite the environmental harm that may come from activities classified as environmental services, however, neither the current environmental services classification nor the proposed amended classifications make any distinctions among service activities based on their actual environmental impacts. In essence, given the current wide-ranging classification of environmental services, liberalizing the sector without clear limitations on the activities covered is inconsistent with the aim of the Doha Declaration to promote environmental benefits. Indeed, any description of these negotiations as a win-win opportunity for trade and the environment fails to account for the environmental harm that may stem from precisely the sectors under negotiation.

IV. Impact of the GATS Obligations in Environmental Services

The failure to limit the scope of the environmental services negotiations is amplified by the potential ramifications that the GATS obligations themselves may have for legal and regulatory efforts to protect the environment. In the current GATS negotiating round, the

48. For example, the use of waste from mining operations in states such as West Virginia as "fill" in rivers and streams has been prohibited until recently under Clean Water Act regulations. Katharine Q. Seelye, *Rule Could Let Mine Debris Fill in Valleys and Streams*, N.Y. TIMES, Apr. 26, 2002, at A14; *see* Final Revisions to the Clean Water Act Regulatory Definitions of "Fill Material" and "Discharge of Fill Material," 67 Fed. Reg. 31,129 (May 9, 2002).

49. *Shipbreaking: International Guidelines Finalized Under UNEP*, GREENWIRE, June 25, 2001.

50. *Communication from the European Communities*, *supra* note 40, at 6.

51. Michael A. Hiltcik, *Water as Business Taps Into Fears*, L.A. TIMES, Sept. 30, 2002, at 1; Michael A. Hiltcik, *MWD Told Mojave Plan is All Wet*, L.A. TIMES, Oct. 8, 2002, at 1. The project was ultimately rejected by the Los Angeles Municipal Water District.

negotiations in environmental services will focus on specific obligations relating to national treatment and market access, while broader negotiations will address general obligations, including disciplines for domestic regulation. Some disciplines, particularly most-favored-nation treatment, already apply to all service sectors, including environmental services. At the national, regional, and local levels, all of these GATS disciplines could have the effect of undermining the ability of governments to carry out measures aimed at preventing environmental damage. Given that a substantial portion of services trade will be from developed to developing countries, the impacts on regulatory efforts are likely to be most significant for developing countries that may already face resource constraints and other obstacles in implementing their environmental regulatory regimes.

In the case of the GATS, the fundamental trade principle of national treatment—non-discrimination against foreign providers—is defined in an extremely broad manner that poses potential risks for environmental regulatory measures. The national treatment obligation in article XVII of the GATS prohibits discrimination against foreign services or service suppliers in comparison to a country's "like services and service suppliers."[52] However, the reach of this non-discrimination obligation extends to circumstances in which regulation "modifies the conditions of competition in favor of services or service suppliers of the Member."[53] Thus, even regulatory measures—including environmental protections—which are formally identical for both domestic and foreign providers and services and are not intended to be discriminatory may still be found to constitute *de facto* discrimination through their practical effects on foreign service operators.[54]

The GATS also includes the other fundamental non-discrimination principle of the trade regime, most-favored-nation (MFN) treatment, which prohibits a WTO Member State from discriminating among other WTO Members in the treatment of other countries' like services and service suppliers. In essence, the best of the treatment provided to the services or providers of any WTO Member must be provided to all. Significantly, the MFN treatment obligation applies to all service sectors, even those that have not been explicitly classified under the GATS, though countries may take exemptions from the application of MFN treatment for specific sectors or for one of the modes of service delivery.

Both of the non-discrimination disciplines of the GATS—national treatment and MFN treatment—may create conflicts with legal and regulatory protections affecting environmental services. Perhaps the foremost example of a regulatory framework around which such tensions may arise is the Basel Convention on the Control of Transboundary Move-

52. GATS, *supra* note 24, art. XVII.1.

53. GATS, *supra* note 24, art. XVII.3.

54. In any discrimination analysis, determination of the "likeness" of foreign and domestic services and service suppliers is an important factor, and it is possible that environmental impacts might be relevant in conducting such analyses. Yet existing WTO jurisprudence concerning the GATS has not provided clear guidance concerning this question. Jurisprudence regarding the GATT is more illuminating, though not definitive. In the *EC-Asbestos* case, the WTO Appellate Body interpreted the likeness provision in GATT article III:4 as "fundamentally, a determination about the nature and extent of a competitive relationship between and among products." *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products, Report of the Appellate Body*, Mar. 2001, WT/DS/135/AB/R, para. 99. Based on this standard, the Appellate Body allowed health risks related to the physical properties of the product and affecting consumer tastes regarding its use to be considered in making the determination of likeness. *EC-Asbestos, Report of the Appellate Body*, ¶¶ 104–132. Whether and how such factors would be assessed in a GATS dispute is uncertain, however, and likeness may not even be relevant in many potential conflicts involving national treatment.

ments of Hazardous Wastes and their Disposal, an agreement that was reached in 1989. In that instance, national regulatory actions developed in order to implement Basel Convention obligations could be considered inconsistent with the non-discrimination rules of the GATS.

The Basel Convention's trade provisions are aimed at limiting the international impacts of hazardous waste. Parties to the Convention are prohibited from trade in hazardous wastes with countries that are not parties, except when those countries are party to a bilateral or regional agreement concerning transboundary movement that is at least as environmentally sound as the Convention.[55] The Convention also prohibits exports of hazardous wastes to parties to the Convention that refuse to accept such imports, and prohibits both exports and imports if a party has "reason to believe" that the waste will not be managed in an environmentally sound manner.[56] The Convention also includes provisions that are not explicitly trade-related, such as a requirement that parties ensure that adequate hazardous waste disposal facilities are available domestically.[57] In 1995, the parties to the Convention adopted an amendment, Decision III/1, which would ban the transport of hazardous waste from what are mostly developed countries to other countries, all of them developing countries. While the amendment has yet to be ratified by a sufficient number of countries to enter into force, its ramifications for restrictions on international waste disposal operations if it does enter into force are clearly substantial.[58]

The GATS non-discrimination obligations are clearly in tension with the provisions of the Basel Convention, which directly imposes trade restrictions based on nationality. Allowing transport and disposal of hazardous wastes domestically, but not permitting such transport and disposal on a transboundary basis, could be considered a violation of national treatment commitments by creating *de facto* discrimination against foreign service operators and also by limiting provision of cross-border services. Further, prohibiting trade to or from countries based on their status as parties to the Convention is likely to conflict with MFN requirements. Restrictions on trade between Basel parties based on concerns about appropriate waste management measures could also lead to claims of national treatment or MFN violations. Finally, government action to ensure the availability of hazardous waste treatment domestically could be viewed as discriminatory against foreign service operators.

The potential for conflict between non-discrimination obligations and the Basel Convention was demonstrated recently in the *S.D. Myers* case brought under the investment provisions in chapter 11 of the North American Free Trade Agreement (NAFTA).[59] A private investor, S.D. Myers, successfully challenged a ban on PCB exports to the United States as a violation of national treatment in article 1105 of NAFTA. The panel's conclusion is based in part on its interpretation of a bilateral agreement between the United States and Canada that permitted the transport of hazardous waste between the two parties and thus partially superceded Canada's obligations under the Basel Convention to limit such trade.

55. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Mar. 22, 1989), arts. IV:5, XI:1.

56. *Id.* art. IV:1(b), (c), art. IV:2(c), (g).

57. *Id.* art. IV:2(b).

58. Information concerning the ban amendment can be found at the official Web site of the Secretariat of the Basel Convention, *at* http://www.basel.int/pub/BaselBan.html (last visited Jan. 3, 2003).

59. S.D. Myers, Inc. v. Government of Canada, *available at* http://www.state.gov/s/e/c3746.htm (Nov. 13, 2000).

Yet the tribunal also stated that Canada's desire to enhance the economic strength of the domestic hazardous waste treatment industry and to process PCBs domestically was a "legitimate goal, consistent with the policy objectives of the Basel Convention."[60] However, the tribunal ruled that, in order to comply with NAFTA's national treatment and other disciplines, policy means other than an export ban should have been used, including such policy tools as subsidies and government procurement of domestic waste treatment.[61] In sum, the tribunal's application of the national treatment disciplines raises concerns about the prospect for GATS rules to be interpreted in a manner that limits the scope of national regulatory decision-making pursuant to the Basel Convention.

Conflicts between the non-discrimination disciplines in the GATS and government efforts to protect the environment may arise in contexts other than the Basel Convention. First, countries may seek to limit the importation or exportation of waste in general in ways that create barriers to foreign service suppliers.[62] Second, environmental services may most appropriately be conducted by operators with localized expertise. UNEP and UNCTAD have concluded that "[e]nvironmental problems are often specific to given regions. Therefore solutions should be adapted to the local situation. Firms from developing countries may be in a better position than firms from industrialized countries to address environmental problems peculiar to the developing regions."[63] Policy measures that explicitly favor local or domestic service providers may thus be environmentally beneficial, but will simultaneously conflict with national treatment commitments. Such measures might include local incorporation requirements, local licensing requirements, and joint venture requirements.

Environmental measures may also create *de facto* discrimination. For instance, the enactment of bans on new incineration operations give preference to those already operating in a particular market, and can thereby discriminate against foreign-based operators that may be latecomers to the market.[64] *De facto* discrimination can also occur if differences in the technology or processes used by a foreign environmental service operator are placed at a disadvantage by regulatory measures that domestic operators have adapted to. The European Communities expressed concern that neutral regulatory measures, which "may be fully justified on environmental grounds," could be found to violate GATS national treatment commitments by virtue of having *de facto* discriminatory impacts on foreign service operators.[65]

In addition to the potential difficulties involving non-discrimination disciplines, the market access commitments under GATS article XVI could also pose significant conflicts with

60. *Id.* ¶ 255.

61. *Id.* The tribunal also notes in paragraph 215 that even the exception in article 104 of NAFTA for measures complying with the Basel Convention requires that such actions be the alternative that is "least inconsistent" with the NAFTA.

62. In Michigan, opposition to imports of waste from Canada has mounted. Canadian Broadcast Corporation, *Michigan May Ban Toronto Trash Exports*, Oct. 13, 2002, *available at* http://cbc.ca/storyview/CBC/2002/10/13/michigan_trash021013. Slovakia has banned the importation of waste for incineration. *GALA: Dying Technology*, *supra* note 46.

63. *GATS Negotiations*, *supra* note 5, ¶ 64.

64. A number of jurisdictions, including Massachusetts, Rhode Island and West Virginia, have adopted bans on new incineration operations. *GALA: Dying Technology*, *supra* note 46.

65. EC Directorate General for Trade, *Note to the Ad hoc 133-Committee on Services*, Oct. 2000, cited in Elisabeth Tuerk & Peter Fuchs, *The General Agreement on Trade in Services and future GATS negotiations—Implications for Environmental Policy Makers*, on behalf of the Federal (Germany) Environmental Agency, Geneva and Berlin, Nov. 2001, at 42 (on file with author).

measures to protect the environment in environmental services sectors. The measures prohibited by market access commitments include limitations on the number of service suppliers, limitations on the total value of service transactions or assets, and limitations on the total number of services operations or total quantity of service output.[66] Quantitative limitations of various types are often integral to regulatory efforts aimed at protecting the environment, including protection from the harmful effects of waste disposal operations. For instance, quantitative restrictions such as limitations on the volume of waste deposited in a landfill or the total size of a landfill could be found inconsistent with the prohibition on limitations on total service output.[67] Similarly, restrictions on wastewater treatment plants that limit the flow rate from those facilities might be considered a restriction on service output.[68] Bans on an entire type of waste disposal operation, such as garbage incinerators, could also be considered a quantitative restriction on the number of service operations that is set at zero.

Similarly, it is also possible that the market access commitments could be understood to prohibit limitations on the volume of water, including natural water resources, used or processed by water services operations.[69] The *EC-Bananas* decision, according to which measures related to goods were seen as falling within the orbit of the GATS, is directly relevant for situations in which the regulation of natural resources such as water render a regulatory effort subject to the services disciplines.[70] The logic of that decision would dictate than any measure affecting the supply of a service is subject to the GATS disciplines. In effect, then, attempts to impose quantitative limitations on the use of natural water resources that are integral to the service activity could be found to violate the market access prohibition on service output limitations.

In addition, the GATS market access rules in article XVI prohibit measures that restrict or require specific types of joint venture and prohibit limitations on the participation of foreign capital. As noted already in regard to national treatment rules, effective environmental services operations often require local expertise and participation. However, the GATS prohibitions on restrictions regarding joint ventures and foreign capital participation could have the effect of limiting the ability of governments to mandate substantial levels of

66. GATS article XVI:2(c) defines limitations on the total number of service operations or on the total quantity of service output as those "expressed in terms of designated numerical units in the form of quotas or the requirement of an economic needs test." GATS, *supra* note 24, art. XVI:2(c).

67. Waste disposal permits commonly involve volume and size limitations. *See*, for example, *Solid Waste Facility Permit*, *available at* http://www.state.nj.us/dep/dshw/lrm/dupont.pdf (last visited Feb. 5, 2003).

68. Wastewater discharge permits sometimes address total flow rates from facilities. *See*, for example, *State Waste Discharge Permit*, *available at* http://www.ecy.wa.gov/programs/swfa/industrial/IND_PERMITS/StatePermits/HuberST.pdf (last visited Feb. 5, 2003).

69. For example, the controversy surrounding the plan to use an aquifer as a water-storage basin centered on the volume of water that would be extracted from the aquifer, including water imported by pipeline from the Colorado River. Hiltzik, *supra* note 51, at 3–1.

70. The EC notes in a footnote to its WTO environmental services submission that the GATS "does not cover measures of a Member which limit inputs for the supply of services," a verbatim reference to GATS footnote 9, which states that the market access prohibition on quantitative limitations concerning service operations and output does not apply to measures limiting inputs. *Communication from the European Communities*, *supra* note 40, at 2. It is unclear, however, what the term "inputs" refers to. Inputs could be understood as those components used in a service activity in their state prior to becoming an integral part of the service activity. For example, in a case such as the one involving Cadiz' infusion of water into, and then extraction of water, from an aquifer, the water resources may have been processed to the point that they are not merely an input, but rather an integral element in the water services operation.

participation by local service providers in operations in which foreign suppliers are involved. The effect of the market access rules may thus be to diminish the ability of governments to develop or enhance local capacity in the environmental services sector.

Another set of GATS disciplines that may conflict with environmental protection measures are the obligations set out in article VI regarding domestic regulation. Since the article VI obligations are found in part II of the GATS addressing General Obligations and Disciplines, they presumably apply as a general matter to all sectors. In particular, the ongoing process in the current GATS negotiations to develop disciplines to implement the obligations in article VI.4 raises troubling concerns. Article VI.4 provides that the Council for Trade in Services shall develop "any necessary disciplines" to ensure that qualification requirements and procedures, technical standards, and licensing requirements are, among other criteria, "not more burdensome than necessary to ensure the quality of the service."[71] Such a standard appears to employ a "least trade restrictiveness" test that privileges trade concerns over other policy matters and does not account for policy decisions based on cost, efficacy, or democratic preference.[72] Devising disciplines to implement this standard could lead to inappropriate constraints on the ability of governments to employ environmental protection measures involving environmental service sectors.

V. Addressing the Potential Negative Impacts of Environmental Services Liberalization

A. Revising the Classification

The environmental aims enunciated in the Doha Declaration cannot be accomplished in the environmental services negotiations given the overly broad classification of the sector and the potential constraints imposed by the GATS obligations themselves. In order to carry out the mandate from Doha, then, the scope of what the WTO considers environmental services must be revised and the exceptions provided in the GATS for environmental measures must be reconsidered.

In the case of classification, the scope of the environmental services definition should be revised so that beneficial service activities are included, while those that are environmentally harmful are excluded. In particular, guidance should be added to the classification that would limit the types and characteristics of the activities to which GATS commitments would apply. Such a limitation could be based on the OECD-Eurostat definition of environmental services cited above, which describes environmental services as activities "to measure, prevent, limit or correct environmental damage to water, air and soil, as well as problems related to waste, noise and eco-systems, [including] cleaner technologies, products and services that reduce environmental risk and minimise pollution and resource use."[73]

This description has been widely cited as the basis for defining the environmental services sector, including by the WTO Secretariat and the Asia-Pacific Economic Cooperation forum.[74] A description such as this would be consistent with proposals to include service

71. GATS, *supra* note 24, art. VI.4.

72. See below for a discussion of the use of least trade restrictiveness tests in WTO jurisprudence concerning article XX(b) of the GATT.

73. Manual, *supra* note 3, at 9.

74. WTO, *Environmental Benefits of Removing Trade Restrictions and Distortions, Note by the Secretariat*, WT/CTE/W/67/Add. 1, Mar. 1998; WTO, *Preparations for the 1999 Ministerial Conference, APEC's "Accelerated*

activities such as protection of ambient air and climate, remediation and cleanup of soil and water, noise and vibration abatement, and protection of biodiversity and landscape. Meanwhile, service activities that create environmental harm would almost certainly fall outside the description's scope, and hence would not be considered subject to the GATS.

A precedent exists for imposing such a limitation on environmental services commitments under the GATS. Footnote 19 of the current U.S. Schedule of Specific Commitments limits the application of the GATS market access and national treatment disciplines in all environmental services sectors to a clearly dilineated set of activities:

> In each of the following subsectors, US commitments are limited to the following activities: implementation and installation of new or existing systems for environmental cleanup, remediation, prevention and monitoring; implementation of environmental quality control and pollution reduction services; maintenance and repair of environment-related systems and facilities not already covered by the US commitments on maintenance and repair of equipment; on-site environmental investigation, evaluation, monitoring; sample collection services; training on site or at the facility; consulting related to these areas.[75]

The U.S. qualification in this footnote limits the type of environmental services covered to a fairly circumscribed set of specialized activities that would appear not to include operations such as standard waste removal, transport, and disposal. As a result of this limitation, many waste-related activities about which concerns might arise may *de facto* be excluded from the United States' commitments. It is also worth noting that, in a 1997 WTO submission concerning the aims of liberalization in environmental services, the United States stated that environmental services are those "related to a project which benefits the environment."[76]

If WTO Members do not agree on a multilateral basis to add a limitation to the GATS classification for environmental services, another path is available. Each Member could choose to include such a qualification on the scope of environmental services in their schedule of specific commitments as a means of excluding harmful activities. However, such a qualification in the schedules of individual countries would most likely only be applicable to each country's specific commitments on national treatment and market access, and would not address any concerns that have to do with the general obligations under the GATS. Moreover, leaving the task of introducing a limitation on environmental services to individual countries, rather than negotiating such qualifications in a multilateral context, may leave many developing countries in a politically weak position when it comes to insisting on the inclusion of qualifications during the request and offer process.

B. Addressing Environmental Exceptions

Despite the importance of limiting the scope of the environmental services classification, any approach—whether multilateral or unilateral—that aims to revise the classification would almost certainly be incomplete. Most significantly, it is difficult for WTO Members to anticipate in advance all of the potential impacts of liberalization in sectors that may

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Tariff Liberalization" Initiative, Communication from New Zealand (Addendum), WT/GC/W/138/Add. 1, Apr. 1999.

75. WTO, *The United States of America—Schedule of Specific Commitments*, GATS/SC/90, at 53.

76. WTO, *Liberalization of Trade in Environmental Services and the Environment—Contribution by the United States*, WT/CTE/W/70, at 1.

come under the rubric of environmental services. Even a limitation on the scope of environmental services activities may be impossible to perfect. It will similarly be difficult for countries to include more tailored qualifications to address all possible conflicts with domestic laws and regulations, a difficulty that is clearly particularly acute for laws and regulations that do not yet exist. As a result, it is also imperative that the GATS include adequate exceptions for environmental measures that would be applicable across all sectors.

Unfortunately, however, the current GATS exceptions are insufficient to ensuring that environmental protection is not undermined by GATS disciplines. If an environmental regulatory measure in sectors covered under the environmental services classification is found to violate the GATS, the only remaining defense available is through the general exceptions found in GATS article XIV. Conflicts between environmental protection measures and GATS commitments cannot, however, be fully resolved through use of the general exception. Although article XIV of the GATS, like article XX of the GATT, includes a set of general exceptions, including one related to environmental matters, the GATS exceptions do not include a vital environmental exception from GATT article XX. The chapeau of GATS article XIV was adopted verbatim from the chapeau of GATT article XX, and GATS article XIV exception also includes identical language to that in GATT article XX(b):

> Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where like conditions prevail, or a disguised restriction on trade in services, nothing in Agreement shall be construed to prevent the adoption or enforcement by any Member of measures:
>
> . . .
>
> (b) necessary to protect human, animal or plant life or health.[77]

However, while the text of GATT article XX(b) has been included here as XIV(b), the GATS does not include the language in article XX(g) of the GATT: "(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption."[78]

The lack of an exception similar to GATT XX(g) raises two principal concerns. First, protection of a number of non-living exhaustible natural resources—including air and water—may not necessarily be protected under the article XIV(b) exception for animals, plants, and humans in the manner that such resources have been found subject to GATT XX(g).[79] Further, and more important, the exception in GATT XX(b) requiring that a measure be "necessary" has been interpreted in WTO jurisprudence to provide much narrower grounds to justify a measure than has GATT XX(g). In what is often described as a "necessity test," WTO jurisprudence concerning XX(b) held that a measure must be the least GATT inconsistent, or "least trade restrictive," regulatory alternative in order to be justified as "necessary."[80] Recent jurisprudence may have shifted somewhat to using what has been characterized by some observers as a "proportionality test," according to which a measure can

77. GATS, *supra* note 24, art. XVI.

78. GATS, *supra* note 24, art. XX(g).

79. *See*, for example, *US-Gasoline*, in which air was considered an exhaustible natural resource. *United States-Standards for Reformulated and Conventional Gasoline, Report of the Appellate Body*, WT/DS2/AB/R (Apr. 1996) [hereinafter *US-Gasoline*].

80. *See* the WTO Secretariat's description of the jurisprudence, particularly Thailand-Cigarettes, Panel Report, paragraph 75, in WTO Committee on Trade and Environment, *GATT/WTO Dispute Settlement Practice Relating to GATT Article XX, Paragraphs (b), (d), and (g)*, WT/CTE/W/203 (Mar. 2002).

be considered in terms of how "vital or important" is the "common interests or values" pursued by the measure.[81] In any event, the jurisprudence concerning XX(b) continues to impose a screen on domestic regulatory action to determine the suitability of such action with respect to its impact on trade, effectively privileging trade concerns over other policy interests and criteria, including cost-effectiveness and democratic preference.

By contrast, the XX(g) exception that is absent in the GATS justifies measures "relating to" a relevant environmental aim, providing a broader and more appropriate context for an exception than XX(b). The importance of the exception has been demonstrated in recent GATT jurisprudence. For instance, the Appellate Body ruled in the *Shrimp-Turtle* case that United States measures to protect endangered sea turtles through import restrictions related to methods used to harvest shrimp could be justified as a measure "relating to the conservation of exhaustible natural resources."[82] While the manner in which the *Shrimp-Turtle* measure was implemented was found to be discriminatory under the obligations in the chapeau of article XX, the measure itself was ruled to be consistent with XX(g).

In that case, as in others in which the XX(g) exception was used, no least trade restrictive test was applied by the Appellate Body. The jurisprudence has established that, in order to fulfill the requirements of XX(g), a measure need only be "primarily aimed at" and have a "substantial relationship" to the conservation of exhaustible natural resources.[83] It is noteworthy that, in defending its *Shrimp-Turtle* measure, the United States recognized the implications of earlier jurisprudence and used XX(g) rather than XX(b) as its principal justification for an exception under article XX. While the United States clearly could have attempted to invoke the exception in XX(b) as the primary justification for a measure protecting "animal life," it presumably argued XX(b) only in the alternative because the language of XX(g) has been interpreted to provide greater deference to environmental regulatory measures.

The absence of the XX(g) exception in the GATS thus means that a critical means for justifying environmental protections is lacking in the environmental services sector.

The importance of this exception is underscored by the Appellate Body's indication in the *Shrimp-Turtle* case that the chapeau cannot be interpreted without the context provided by the relevant subparagraph.[84] In the GATS, the lack of an exception equivalent to GATT XX(g) means that the chapeau can only be interpreted in the context of applying the more stringent test in the XIV(b) exception.

Moreover, the importance of the subparagraphs is particularly important in considering potential conflicts between GATS rules and multilateral environmental agreements, including the Basel Convention. In the *Shrimp-Turtle* case, the Appellate Body initially ruled that, although XX(g) applied to the measure at issue, the measure could not be defended under the chapeau of article XX in part because the United States failed to seek a multilateral agreement with the plaintiff countries regarding the protection of sea turtles from shrimp fishing.[85] Later, however, the Appellate Body ruled in the phase of the case reviewing United

81. *EC-Asbestos, Report of the Appellate Body, supra* note 54, ¶ 172.

82. *United States-Import Prohibition of Certain Shrimp and Shrimp Products, Report of the Appellate Body*, WT/DS58/AB/R, ¶¶ 135–142 (Oct. 1998) [hereinafter *US-Shrimp Products*].

83. *US-Gasoline, supra* note 79, at 18.

84. *US-Shrimp Products, supra* note 82, ¶ 120.

85. *Id.* ¶ 172.

States implementation of the WTO decision that, based on "ongoing serious good faith efforts to reach a multilateral agreement," U.S. actions were now justified under article XX.[86]

If even good faith efforts to reach international environmental agreements are sufficient for a defense under article XX, then it would appear that multilateral agreements themselves can be justified through such an exception. However, the decision in *Shrimp-Turtle* was based on the application of the XX(g) exception that is absent in the GATS. The gap in the GATS leaves open a significant question as to whether the more stringent XX(b) exception would provide a similar defense for actions to implement a multilateral environmental agreement if the agreement itself or a country's implementation were not found by the WTO to meet the least trade restrictiveness test found in XX(b).

At a minimum, then, a starting point for modifying the environmental exceptions in the GATS would be to incorporate an exception equivalent to article XX(g) into the agreement.[87] If multilateral agreement on such a modification is not achievable, countries could introduce a horizontal qualification equivalent to XX(g) in their schedules of commitments. However, as with introducing limitations on environmental services in a country's schedule, such a qualification would most likely only be applicable to each country's specific commitments on national treatment and market access and would not address any to the general obligations under the GATS. In addition, adding XX(g) in individual schedules manner may be more politically difficult for many developing countries that find themselves in a comparatively weak position in negotiations.

VI. Conclusion

Despite high hopes that environmental services negotiations would be a win-win opportunity for trade and the environment, it is likely that they could instead result in an outcome that is harmful to environmental aims. The negotiations are based on an overbroad classification of environmental services that includes harmful service activities, a substantial problem that is amplified by the potential impact of the GATS disciplines themselves on environmental protection measures. It is therefore vital to address the potential for environmental damage that may stem from the negotiations by, as first steps, revising the classification and modifying the GATS environmental exceptions.

Achieving such changes may take some time, however. As a consequence, before moving the environmental services negotiations forward at all, it would be appropriate for the WTO and Member countries to undertake a thorough and public assessment of the past and potential future impacts of these negotiations. If such an assessment is not prepared, and if changes in policy are not undertaken, paragraph 31 of the Doha Declaration may come to be seen not as a boon to the environment, but as an assault, whether intended or not.

86. *United States-Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 of the DSU by Malaysia, Report of the Appellate Body*, WT/DS58/AB/RW, ¶ 153 (Oct. 2001).

87. It should be noted that environmental analysts and organizations have expressed concerns regarding the current article XX and its application in WTO jurisprudence. *See*, for example, the comments on article XX in *Federal Register Comments on US Position Regarding Qatar Ministerial Meeting of the World Trade Organization*, submitted by American Lands Alliance, Center for International Environmental Law, Consumer's Choice Council, Defenders of Wildlife, Earthjustice Legal Defense Fund, Friends of the Earth, Institute for Agriculture and Trade Policy, Natural Resources Defense Council, Pacific Environment, and Sierra Club (May 22, 2001), *available at* www.ciel.org/Publications/FRNQatarCommentsFinal.pdf.